

PRACTICE TEST 1 - CHAPTER 7

Beginning and Intermediate Algebra by Messersmith and Feldman, 4th edition

Factor out the greatest common factor.

1. $15u^7 - 5u^6 + 10u^5$

Factor out the common binomial factor.

2. $8x(p+5) + (p+5)$

Factor by grouping.

3. $xy + 8x + 7y + 56$

4. $2a^3 - 10ab + 5a^2b - 25b^2$

5. $ab - 4a - 6b + 24$

Factor each polynomial completely, if possible:

6. $y^2 - 18y + 72$

7. $x^2 + 6x + 16$

8. $-p^2 - 11p - 30$

9. $4a^2 - 8a - 480$

10. $2b^3 - 22b^2 + 48b$

11. $m^2 - 5mn - 36n^2$

12. $9x^2 + 54x + 10x + 60$

13. $12h^2 + 31h + 20$

14. $2x^2 + 3xy - 14y^2$

15. $14r^5t^3 + 13r^4t^3 + 3r^3t^3$

16. $7z^2 - 18z + 8$

17. $25z^2 - 20z + 4$

18. $12y^3 + 60y^2 + 75y$

19. $4x^2 + x + 9$

20. $r^2 - 81$

21. $63 - 7m^2$

22. $w^3 + 64$

23. $1000a^3 - 27$

24. $128p^3 - 54q^3$

Solve the following equations:

25. $12p(p - 4) = 0$

26. $(11t + 5)^2 = 0$

27. $49 = 25r^2$

28. $7d^2 - 30d + 8 = 0$

29. $p^2 + 13p = -30$

30. $(10x - 11)(x - 6) = 0$

Practice Test 1 Chapter 7 Answers

1. $5u^5(3u^2 - u + 2)$
2. $(p + 5)(8x + 1)$
3. $(y + 8)(x + 7)$
4. $(a^2 - 5b)(2a + 5b)$
5. $(b - 4)(a - 6)$
6. $(y - 12)(y - 6)$
7. Prime
8. $-(p + 5)(p + 6)$
9. $4(a + 10)(a - 12)$
10. $2b(b - 3)(b - 8)$
11. $(m + 4n)(m - 9n)$
12. $(x + 6)(9x + 10)$
13. $(3h + 4)(4h + 5)$
14. $(2x + 7y)(x - 2y)$
15. $r^3t^3(2r + 1)(7r + 3)$
16. $(7z - 4)(z - 2)$
17. $(5z - 2)^2$
18. $3y(2y + 5)^2$
19. Prime
20. $(r - 9)(r + 9)$
21. $7(3 - m)(3 + m)$
22. $(w + 4)(w^2 - 4w + 16)$
23. $(10a - 3)(100a^2 + 30a + 9)$
24. $2(4p - 3q)(16p^2 + 12pq + 9q^2)$
25. $\{0, 4\}$
26. $\left\{-\frac{5}{11}\right\}$
27. $\left\{-\frac{7}{5}, \frac{7}{5}\right\}$
28. $\left\{\frac{2}{7}, 4\right\}$
29. $\{-10, -3\}$
30. $\left\{\frac{11}{10}, 6\right\}$